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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,175	10/30/2006	Jialin Wu	31411/04001	2818
	7590 11/29/200 TER & GRISWOLD, I	•	EXAM	2818 INER
800 SUPERIO	-		LEYKIN	I, RITA
SUITE 1400 CLEVELAND,	OH 44114		ART UNIT	PAPER NUMBER
			2837	
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			MAIL DATE	DELIVERY MODE
			11/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

•	·	Application No.	Applicant(s)		
		10/586,175	WU, JIALIN		
Office Action Summary		Examiner	Art Unit		
		Rita Leykin	2837		
	The MAILING DATE of this communication app				
Period fo	•	•			
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPL' CHEVER IS LONGER, FROM THE MAILING Donsions of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. Operiod for reply is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUN 36(a). In no event, however, may a will apply and will expire SIX (6) MO , cause the application to become A	IICATION. a reply be timely filed DNTHS from the mailing date of this communication. ABANDONED (35 U.S.C. § 133).		
Status	· .				
1)	Responsive to communication(s) filed on				
2a) <u></u> □	This action is FINAL . 2b)⊠ This action is non-final.				
3)	Since this application is in condition for allowal	* ()	·		
	closed in accordance with the practice under E	Ex parte Quayle, 1935 C.	D. 11, 453 O.G. 213.		
Disposit	ion of Claims				
4)🖂	Claim(s) <u>1-4</u> is/are pending in the application.	•			
	4a) Of the above claim(s) is/are withdraw	wn from consideration.			
5)	Claim(s) is/are allowed.				
·	Claim(s) <u>1-4</u> is/are rejected.				
·	Claim(s) is/are objected to.				
8)	Claim(s) are subject to restriction and/o	r election requirement.			
Applicati	ion Papers				
9)[The specification is objected to by the Examine	er.	•		
10)	The drawing(s) filed on 17 July 2006 is/are: a)	⊠ accepted or b)⊡ obje	ected to by the Examiner.		
	Applicant may not request that any objection to the	drawing(s) be held in abeya	ance. See 37 CFR 1.85(a).		
	Replacement drawing sheet(s) including the correct	tion is required if the drawin	g(s) is objected to. See 37 CFR 1.121(d).		
11)	The oath or declaration is objected to by the Ex	caminer. Note the attache	ed Office Action or form PTO-152.		
Priority (under 35 U.S.C. § 119				
12)⊠	Acknowledgment is made of a claim for foreign	priority under 35 U.S.C.	§ 119(a)-(d) or (f).		
a)	⊠ All_ b) Some * c) None of:				
	1. Certified copies of the priority document		•		
	2. Certified copies of the priority document		· ·		
	3. Copies of the certified copies of the prio	· •	n received in this.National Stage		
	application from the International Bureau	, , , , , , , , , , , , , , , , , , , ,			
	See the attached detailed Office action for a list	of the certified copies no	r received.		
Attachmen	nt(s)				
1) Notic	ce of References Cited (PTO-892)		Summary (PTO-413)		
	ce of Draftsperson's Patent Drawing Review (PTO-948) . mation Disclosure Statement(s) (PTO/SB/08)		o(s)/Mail Date Informal Patent Application		
	mation Disclosure Statement(s) (P10/SB/08) er No(s)/Mail Date <u>10/30/06;11/02/06</u> .	6) Other:			

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartwig US # 4,446,706.

With respect to **claim 1**, Hartwig discloses a washing machine that is driven at a desired, alternative extended number of revolutions/min, (see abstract). Wherein, in Fig. 11 the washing machine 55 provided with a short-circuit asynchronous motor (reads on applicants "squirrel cage motor", as in **claim 2**.

In Fig. 12, Hartwig shows a three-phase rectifier receiving ac power 61, a capacitor shown as a part of rectifier connected to lines 62 and 63. An inverter comprising six switching transistors 64-69 connecting three-phase motor to negative and positive supply lines from the rectifier 60.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartwig US # 4,446,706, as applied to claim 1 above, and further in view of Stemmler US # 3,639,820 and Okyama et al. US # 3,949,283.

With respect to **claim 3**, Hartwig do not teach slip rings. However, such limitation in combination with proposed motor can be hound in Stemmler. Wherein Stemmler teaches a converter arrangement for feeding a variable ac motor including an adjustment of converter output voltage per phase that is effected by voltage output of a slip ring armature asynchronous machine, (see abstract).

With respect to **claim 4**, Hartwig and Stemmler do not teach presence threephase transformer in connection to inverter and motor. Such teaching can be found in Okyama et al. disclosure. Wherein Fig. 1 shows such connection.

Hence, it has been obvious to one of ordinary skills in the art, at the time invention was made to use Hartwig teaching on commutation of variable speed asynchronous motor in combination with Stemmler teaching on motor structure including slip-rings and in combination with Okyama et al. teaching on three-phase transformer in motor supply circuit to control asynchronous motor operation with a variable speed control.

The reason to use slip rings is to provide for inverter adjustment to feed ac current motor with regulated current and frequency, in which adjustment of the converter or inverter output voltage per phase is affected by the voltage output of slip ring.

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The reason to use three-phase transformer is to convert the three-phase ac voltage of the power supply into a variable dc voltage.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita Leykin whose telephone number is (571)272-2066. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571)272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rita Leykin Primary Examiner Art Unit 2837

R.L.